

WHAT IS CLAIMED IS:

1. An apparatus for improving uniformity used in a backlight module comprising:

a plurality of light sources for providing an illuminating light;

5 a reflective housing adjacent to the light sources for receiving the light sources and reflecting the illuminating light; and

at least one structured arc sheet locating at the periphery of the light source for making the illuminating light uniform.

2. The apparatus as claimed in claim 1, wherein the light source
10 is a light-emitting diode, an electro-luminescent device, or a cold cathode fluorescent lamp.

3. The apparatus as claimed in claim 1, wherein the light sources are parallel and equally spaced to each other.

4. The apparatus as claimed in claim 1, wherein the reflective
15 housing is made by stamping or by extrusion.

5. The apparatus as claimed in claim 1, wherein the surface of the reflective housing is coated with a reflecting and diffusing material.

6. The apparatus as claimed in claim 1 further comprising a light enhancement unit for raising the semi-brightness angle of the illuminating
20 light, wherein the light source is located between the light enhancement unit and the reflective housing.

7. The apparatus as claimed in claim 1, wherein the structured arc sheet is made of total reflection, transparent, or semi-reflection and semi-transparent materials.

8. The apparatus as claimed in claim 2, wherein the structured arc sheet has a curvature diameter longer than the diameter of the CCFL.

9. The apparatus as claimed in claim 1, wherein two structured arc sheets are mounted at the periphery of each light source.

5 10. The apparatus as claimed in claim 9, wherein the angle included by the two structured arc sheets ranges from 30 degrees to 270 degrees.

11. The apparatus as claimed in claim 9, wherein the two structured arc sheets are in the same plane..

10 12. The apparatus as claimed in claim 9, wherein the two structured arc sheets have different thickness or curvature.

13. The apparatus as claimed in claim 1, wherein the structured arc sheet is made of metal, polymethyl methacrylate (PMMA), polycarbonate (PC), or glass.

15 14. The apparatus as claimed in claim 1, wherein the apparatus is used in a liquid crystal display.

15. The apparatus as claimed in claim 9 wherein the two structured arc sheets are not in the same plane.